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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/205,056	12/03/1998	JEAN-PIERRE DATH	F-722	9184

25264 7590 04/08/2003

FINA TECHNOLOGY INC
PO BOX 674412
HOUSTON, TX 77267-4412

EXAMINER

NORTON, NADINE GEORGIANNA

ART UNIT	PAPER NUMBER
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1764

27

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/205,056

Applicant(s)

DATH ET AL.

Examiner

Nadine Norton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

In view of the appeal brief in paper no.26 filed on 1-27-03, PROSECUTION IS
HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following
two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37
CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a
supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or
other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person
having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the
manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the
claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various
claims was commonly owned at the time any inventions covered therein were made absent any
evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out
the inventor and invention dates of each claim that was not commonly owned at the time a later
invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c)
and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 15-22 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP0109060 in view of Burk et al.(6,171,556).

Applicants are claiming a process for the production of propylene from an olefinic feedstock containing at least one olefin of C₄ or greater. The process comprises contacting an olefin feedstock with an MFI catalyst as defined in applicants' claim 1.

The reference of EP0109060 discloses a process for the production of propylene from an olefinic feed containing 4 to 12 carbon atoms. See abstract, lines 1-2. EP0109060 teaches that the olefinic feed is contacted with a ZSM-5 or silicalite. See page 1, lines 30-31. The ZSM-5 has a SiO₂ / Al₂O₃ molar ratio of greater than or equal to 350. See page 1, lines 31-32. The reference teaches process conditions including a temperature of 400-600 °C, a space velocity of 5-200 kg/hr and a pressure of 1.5 to 7.5 atm. See page 1, lines 31-35 and page 2, lines 7-8.

The reference of EP0109060 succeeds at disclosing a process for the production of propylene from an olefin feed in the presence of a catalyst with components corresponding to those claimed by applicants (i.e. ZSM-5 or silicalite type). The reference's disclosure of ZSM-5 and silicalite encompasses applicants' claimed MFI structure because such compositions possess MFI structure by definition.

It is noted that the reference of EP0109060 does not disclose applicants' newly added catalyst method of making limitations.

The reference of Burk et al.(6,171,556) illustrates that steaming and leaching (e.g. complexing) are known and conventional for adjusting the silica/alumina ratios of zeolites by removing alumina. See column 8, line 50. Steaming is conducted at 350-900°C. See column 7, lines 39-41.

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Since the reference of EP0109060 does not restrict the mechanism by which the ZSM-5 (crystalline silicate) is produced, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select steaming and/or complexing as a method to obtain the final silica/alumina ratio disclosed by EP0109060 because Burk et al.(6,171,556) illustrates that such steaming and complexing steps are known and conventional for producing desired silica/alumina ratios. The cited art supports the conclusion that applicants' catalyst modification steps are known and therefore not a patentable distinction over the teachings of EP0109060.

It is noted that the reference is silent about the relative percentages of propylene in the product effluent. However, applicants' claimed propylene percentage would naturally be produced because the same feed subjected to the same process conditions/catalyst would accomplish similar conversion percentages.

Response to Arguments

Applicants' arguments in the appeal brief filed 1-27-03 in paper no.16 have been fully considered but they are not persuasive. In view of a conference discussing the arguments in the brief, it was decided to supplement the pending rejection with an additional reference showing the conventionality of applicants' steaming and complexing steps. It was decided that applicants' positively recited catalyst modification steps could "not" be construed as product by process limitations. However, the final composition of the catalyst employed in the reference of EP0109060 appears to be the same as the composition produced by applicants' steaming/complexing steps. As a result, it is considered to accomplish similar conversions to

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those claimed by applicants'. All other arguments/positions made prior to the submission of applicants' appeal brief remain in the case.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Norton whose telephone number is 703-305-2667. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

N.N.

April 5, 2003

NADINE G. NORTON
PRIMARY EXAMINER

